

## REMARKS

Claims 24-45 are pending and rejected in this application. Claim 24 is amended hereby.

Responsive to the rejection of claim 44 under 35 U.S.C. § 112, second paragraph, Applicants respectfully traverse the rejection and submit that claim 44 is in condition for allowance. The Examiner has indicated that it is unclear if the weights referred to in claim 44 to the applied coating applicable when they are wet or dry. Applicants reassert the arguments in the previous amendment and further state that the term “grammage” is a metric system measurement of the basis weight of finished paper. Applicants respectfully draw the Examiner’s attention to the definition contained at [www.paperonweb.com/dict.htm](http://www.paperonweb.com/dict.htm) in which grammage is defined as a weight in grams of one square meter of paper or board ( $\text{g/m}^2$ ); also basis weight. The definition for basis weight is defined as the weight in pounds of a ream of paper cut to a basic size. As such the term grammage applies to the grams per meter squared, in this case of a coating, of paper that is cut into a pre-selected size thus indicating that the grammage of claim 44 is the coating grammage of dried paper. For the foregoing reasons, Applicants submit that claim 44 is in condition for allowance which is hereby respectfully requested.

Responsive to the rejection of claims 24-34, 36-39 and 41-45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,230,743 (Nakamura et al.) in view of U.S. Patent No. 5,206,057 (Finnicum et al.), Applicants have amended claim 24 and submit that claims 24-34, 36-39 and 41-45 are now in condition for allowance.

Nakamura et al. disclose a process for producing pressure sensitive copying paper (Figs. 3 and 4) using a coating solution 1 containing microcapsules as a main component. A wind shielding plate 11 is placed upstream of the contact area so that the free fall of the material reaches web 9 without being disturbed (column 4, lines 8-55). The coating apparatus shown in Fig. 4 has a first coating apparatus and a second coating apparatus positioned subsequent to the

first coating apparatus in the direction of flow of web 9. Web 9 goes through a first curtain and a second curtain flow as it proceeds in the direction of the arrow shown on web 9 of Fig. 4. The second coating layer is formed on the first coating layer while the first coating layer is in an undried state (column 7, lines 1-50).

Finnicum et al. show a device for applying a curtain coating for photographic film in which a multi-layer material passes through slots 14 and is dropped onto a web by gravity. The curtain 17 is bounded by side walls 19, 20 and a lateral wall 21. A valve mechanism permits a fluid to pressurize the space between the curtain 17 and the perimeter walls via a conduit 22 and valve 23 in order to control where on the arc of the web the curtain 17 impinges. There is a space between the web and the walls (column 3, lines 20-52).

In contrast claim 24 as amended, recites in part:

said first curtain and said second curtain maintaining said pressure differential  
along said first curtain and said second curtain to said material web.

(Emphasis added). Applicants submit that such an invention is neither taught, disclosed nor suggested by Nakamura et al., Finnicum et al. or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Nakamura et al. discloses a process for producing pressure sensitive copying paper including a coating solution that contains microcapsules of a main component. Finnicum et al. discloses a device for applying a curtain coating for photographic film in which a multi-layer material passes through slots and is dropped onto a web by gravity. Finnicum et al. indicates that there is a space between the walls and the web and that leakage of air occurs, as indicated in column 4, lines 23 and 24, in Fig. 7 it can be seen that wall 71 does not extend all the way to web 11 whereas both of the curtains of Applicants' invention extends completely to the web thereby sealing the pressure all the way along the curtain as well as to the web. This space that is seen in Fig. 7 is also apparent in Figs. 3 and 5 of Finnicum et al. The pressure in space 44 of Applicants'

invention is enclosed by the medium curtains, as stated in lines 9-14 of page 8 of the specification. The positive or negative pressure in space 44 would extend throughout space 44 since there are no restrictions in the space to allow a difference of pressure within space 44, nor are there any leaks, gaps or spaces that exist along the medium curtains. As such the pressure-differential is maintained along each of the medium curtains. The effects of the maintenance of the pressure-differential is discussed in the specification as including better wetting of the top coat on the pre-coat and a stabilization of the medium curtains. Therefore, Nakamura et al., Finnicum et al. and any of the other cited references, alone or in combination, fail to disclose, teach or suggest the first curtain and the second curtain maintaining the pressure differential along the first curtain and second curtain to the material web, as recited in claim 24.

Applicants' invention has distinct advantages in that the vacuum or a positive pressure is provided between the first and second curtains and extends all the way to the material web on both sides of the pressure differential space. If a vacuum is produced, the separation of the first application medium curtain from a guide doctor is accomplished. Further, the wetting of the top coat on a pre-coat is improved. The use of a positive pressure between the first and second curtains causes the pre-coat to be anchored in a superior manner on the moving material web and both curtains are stabilized, with the positive pressure reducing the tendency for the material to flutter. These advantages can only be obtained by having first and second curtains that extend all the way to the material web. For all the foregoing reasons, Applicants submit that claim 24, and claims 25-34, 36-39 and 41-45 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Claim 35 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura et al. in view of Finnicum et al. and in further view of U.S. Patent No. 5,192,592 (Shay). However, claim 35 depends from claim 24, and claim 24 has been placed in condition for

allowance for the reasons given above. Accordingly, Applicants submit that claim 35 is now in condition for allowance, which is hereby respectfully requested.

Claim 40 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura et al. in view of Finnicum et al. and in further view of U.S. Patent No. 5,136,970 (Saito et al.). However, claim 40 depends from claim 24, and claim 24 has been placed in condition for allowance for the reasons given above. Accordingly, Applicants submit that claim 40 is now in condition for allowance, which is hereby respectfully requested.

At page 15 of the Office Action, the Examiner has indicated that Applicants' previous amendment had necessitated the new grounds of rejection presented in this Office Action. However, except for a minor amendment to dependent claim 44 in which some text was deleted Applicants' claims remained unchanged. Since the new grounds of rejection was not necessitated by the amendment of the claims nor based on information submitted in an Information Disclosure Statement, Applicants respectfully submit that it was premature to make the action a Final Office Action.

For the foregoing reasons, Applicants submit that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Moreover, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

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